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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,173	12/18/2001	Olaf Storaasli	A8268	9311

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SUGHRUE MION, PLLC  
2100 Pennsylvania Avenue, NW  
Washington, DC 20037-3213

EXAMINER

PATIDAR, JAY M

ART UNIT	PAPER NUMBER
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2862

DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/020,173

Applicant(s)

STORAASLI, OLAF

Examiner

Jay M. Patidar

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/22/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

1. This communication is in response to applicant's amendment received on December 9, 2003.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the bundle support member being secured to the splice box as set forth in claims 1,14,23 must be shown or the feature(s) canceled from the claim(s).

No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. Claim 1,14,23 are objected to because of the following informalities:

In claims 1,14, the phrase "respective splice box" at last line does not make sense since only one end of the support member is being claimed;

In claim 23, it is unclear as to what is meant by partially disposed inside the optical fiber cavity.

Appropriate correction is required.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 3, 6-9 and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Blew et al (5,448,670).

Blew et al discloses (Figs. 5 and 6 and col. 7, line 59-col. 8, line 18) a central tube cable, comprising: a cable jacket 35' defining an optical fiber cavity therein; at least one radial strength member 34' embedded in said jacket; a plurality of optical fibers 33' disposed within said optical fiber cavity; and a bundle support member 36 disposed inside said optical fiber cavity, limiting axial movement of said optical fibers with respect to said bundle support member. The optical fibers are housed within buffer tubes, which are helically stranded (claims 2, 6-8, 15, 17-19) or reverse helical stranded, which would implicitly include S-Z stranding (claims 3, 9, 16, 20) around the bundle support member. With respect to claim 14, the bundle support member of Blew et al may be described as string-like. Brew inherently discloses that the bundle support member is connected to or

secured to the splice box in order to support the cable for example between two vertical poles. Also, note third paragraph of page 1 of the specification.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 5, 10-13, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blew et al (5,448,670) in view of Plessner et al (4,709,983) and Rahman et al (5,390,273).

Blew discloses a central cable as explained in detail above. Since Blew et al does not describe the material of which support member 36 is made, it is not clear whether support member is rigid or flexible (claims 4, 5). Nor does Blew et al hold the optical fibers together as an optical fiber ribbon (claims 10-13, 21, 22).

Plessner et al discloses (Fig. 2) an optical fiber cable with flexible bundle support member (1, 2, 3, 4, Fig. 1) and a plurality of optical fibers 15 held together as an optical fiber ribbon (14). At col. 1, lines 26-64, Plessner et al also recognizes the use of rigid bundle support members.

Rahman et al discloses (Figs. 1, 2) an optical fiber cable having a plurality of optical fibers and reveals at col. 2, lines 28-44, that the fibers may be enclosed in tubes wound in helical or S-Z fashion and that the central strength member (bundle support member) may be flexible or rigid.

The relative merits of rigid and flexible bundle support members are well known. Consequently, it would have been obvious to one skilled in the art at the time the invention was made to make the bundle support member of Blew et al flexible or rigid, as taught by Plessner et al and Rahman et al, depending on whether it is desired to have the superior strength provided by a rigid member, or the ease of cable handling provided by a flexible member.

Adaptation of the cable of Blew et al to include ribbon supported fibers, as taught by Plessner et al, would have been obvious to one skilled in the art at the time the invention was made, ribbon cables providing the known advantage of enabling increased numbers of optical fibers to be used and restriction of the relative movement of the fibers.

6. Claims 1-13,23 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2159291 in view of Blew et al (5,448,670).

GB 2159291 discloses a central cable with all the claimed subject matter except for the radial strength member embedded in the jacket (Note the figure). The use of the radial strength members in the jacket is known in the art as evidenced by Blew (Also note second paragraph on page 1 of the specification). It is known in the art that the end of radial strength member or a central strength member is used to secure the optical cable to the splice box to support the cable. Consequently, it would have been obvious to one having ordinary skilled in the art at the time the invention was made to modify '291 to have included the radial strength members as taught by Blew to support the cable.

7. Claims 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0564130 in view of Blew et al (5,448,670).

EP 0564130 discloses a central cable with all the claimed subject matter except for the radial strength member embedded in the jacket (Note the figure). The use of the radial strength members in the jacket is known in the art as evidenced by Blew (Also note second paragraph on page 1 of the specification). It is known in the art that the end of radial strength member or a central strength member is used to secure the optical cable to the splice box to support the cable.

Consequently, it would have been obvious to one having ordinary skilled in the art at the time the invention was made to modify '130 to have included the radial strength members as taught by Blew to support the cable.

8. Claims 1 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Misono et al (JP 2-238412).

Misono disclose a central tube cable, comprising: a cable jacket (sheath 6) defining an optical fiber cavity therein; at least one radial strength member (steel wires 8) embedded in said jacket; a plurality of optical fibers 2 disposed within said optical fiber cavity; and a bundle support member 1 disposed inside said optical fiber cavity. The filamentary nature of the support member would enable characterization thereof as being string-like. Misono inherently discloses that the bundle support member is connected to or secured to the splice box in order to support the cable for example between two vertical poles. Also, note third paragraph of page 1 of the specification.

9. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.



10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

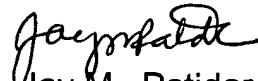
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note USPTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay M. Patidar whose telephone number is 571-272-2265. The examiner can normally be reached on M-Thur 7:00-5:30.

The fax number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jay M. Patidar  
Primary Examiner  
Art Unit 2862

April 1, 2004